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AMSAT NEWS SERVICE
ANS-081

The AMSAT News Service bulletins are a free, weekly news and information service of AMSAT North America, The Radio Amateur Satellite Corporation. ANS publishes news related to Amateur Radio in Space including reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

The news feed on http://www.amsat.org publishes news of Amateur Radio in Space as soon as our volunteers can post it.

Please send any amateur satellite news or reports to:
ans-editor at amsat.org.

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ANS-081 AMSAT News Service Weekly Bulletins

AMSAT News Service Bulletin 081.01
 >From AMSAT HQ KENSINGTON, MD.
DATE March 22, 2015
To All RADIO AMATEURS
BID: $ANS-081.01

AMSAT Hotel Room Reservations for Dayton Hamvention

Once again, this year, as in previous years AMSAT has reserved a block of rooms for the Dayton Hamvention at the Country Inn & Suites in Fairborn, Ohio. The cost is $109 per night. The cutoff date for reservations is April 12.

First priority will be given to AMSAT members assisting with the booth operations, satellite operating demonstrations, and the AMSAT Forum presentations. Call Martha at the AMSAT office at 301-822-4376 to give her your arrival/departure dates and your credit card information.

[ANS thanks Martha at the AMSAT Office for the above information]

AMSAT at the Dayton Hamvention -- First call for volunteers

Last year, we had 52 people assist with the AMSAT booth at the Dayton. It was the efforts of those volunteers that made the 2014 Dayton Hamvention a success for AMSAT.

The interaction with AMSAT members, satellite operators, designers, and builders makes the whole experience a lot of fun.

The 2015 Hamvention is May 15-17. Would you consider helping AMSAT at Dayton this year?

Whether you're available for only a couple of hours or if you can spend the entire weekend with us, your help would be greatly appreciated.

Please send an e-mail to Steve, n9ip(a)amsat.org if you can help.

[ANS thanks AMSAT's Hamvention Chairman Steve Belter, N9IP for the above information]

ITU Symposium Endorses Small Satellite Regulation and Communication Systems Declaration

International Amateur Radio Union (IARU) representatives were in Prague earlier this month to join discussions on the regulatory aspects of orbits and
spectrum usage for nanosatellites and picosatellites. On hand for the International Telecommunication Union (ITU) Symposium and WorkshopMarch 2-4 were IARU Vice President Ole Garpestad, LA2RR, and former IARU Region 1 President Hans Blondeel Timmerman, PB2T. In particular, discussions centered on
the application of the ITU Radio Regulations. The symposium concluded with the
unanimous endorsement of the “Prague Declaration on Small Satellite Regulation
and Communication Systems.”

“The symposium provided a unique opportunity for experts to examine the procedures for notifying space networks and consider possible modifications to
enable the deployment and operation of small satellites,” said ITU Secretary-
General Houlin Zhao. “‘The Prague Declaration’ represents an important step in
this direction.”

More than 160 participants from some 40 countries attended the symposium. The
gathering is being considered an important step in preparing for the

2015 World
Radiocommunication Conference (WRC-15) in Geneva November 2-27.

Delegates discussed challenges facing small satellite development, including aspects related to national and international legal and regulatory issues, frequency management, and radiocommunication standardization. Participants reiterated the need to ensure the long-term sustainability of small satellites
in outer space. They stressed the importance of implementing national regulatory frameworks that clearly define the rights and obligations of all stakeholders, in conformance with international laws, regulations, and procedures established by the UN General Assembly, the United Nations Committee
on the Peaceful Uses of Outer Space, and the and ITU.

These regulatory issues relate to the registration of objects launched into outer space, frequency coordination, and the registration of satellite networks, as well as compliance with the space debris mitigation guidelines.

ITU Radiocommunication Bureau Director François Rancy, said the ITU, in partnership with key players, including academe, “is addressing newly emerging
requirements by various industry sectors to place small communication satellite
systems in orbit. “We are examining the regulatory aspects of the use of radio
frequency spectrum and satellite orbits to facilitate the launch and operation
of a new generation of small satellites,” he said.

The symposium was organized by ITU in cooperation with ITU Academia Member, the Czech Technical University’s Faculty of Electrical Engineering (CTU FEE).

http://www.arrl.org/news/itu-symposium-endorses-small-satellite-regulation-and-communication-systems-declaration

[ANS thanks the ARRL for the above information]

Young Ham’s First Contact is via OSCAR Satellite

8-year-old radio amateur Hope Lea, KM4IPF made her first contact just 45 minutes after her callsign appeared in the FCC database. The contact with Arthur, K4YYL, via the FO-29 satellite, took place on March 11, 2015 at 2100 UT.

Her elder sister Faith, WA4BBC and brother Zechariah, WX4TVJ got to work K4YYL
as well. They had both gained their US Technician licenses in February and upgraded to the US General a couple of weeks later.

Hope’s younger sister is studying for her license.

Video of the contact is posted here:
https://vimeo.com/122112807

FO-29 information
http://amsat-uk.org/satellites/two-way-comms-satellites/fuji-oscar-29-jas-2/

John Heath G7HIA describes how to work FO-29 in this article
http://amsat-uk.org/beginners/radcom-getting-started-on-satellites/

[ANS thanks AMSAT-BB & AMSAT-UK for the above information]

Two Million Packets Uploaded to Data Warehouse (AO-73)

The FUNcube team are pleased to announce that the Data Warehouse has received
two million packets of telemetry data from ground stations around the world.

FUNcube-1 (AO-73) was launched on November 21, 2013 and since then radio amateurs and schools have been receiving the telemetry packets transmitted by
the satellite and passing them to the AMSAT-UK Data Warehouse for analysis and
storage.

There are normally several people uploading the same packet but for the 2 millionth it was an individual:

• Carlos Eavis, G3VHF

The Data Warehouse statistics as of 09:53 UT on March 15, 2015 were:

Number of registered users: 1529
Number of active users (data received in last two weeks): 193
Number of active users since launch: 818

Number of packets transmitted by satellite since deployment: 8312304 (2.13 GB)
Number of packets uploaded by users before de-duplication: 8539662(2.19 GB)

Number of packets stored in warehouse: 2000000 (512 MB)

Number of packets recovered & stored – Time – Coverage
• Realtime 2M – 115 days – 25%
• HiRes 3.9M – 1085 minutes – 19%
• WOD 0.56M – 385.78 days – 80%

As always, many thanks for all those individuals and groups who are sending data to the warehouse.

FUNcube-1 (AO-73) Telemetry:
• Dashboard App
http://funcube.org.uk/working-documents/funcube-telemetry-dashboard/
• Data Warehouse Archive
http://warehouse.funcube.org.uk/
• Whole orbit data
http://warehouse.funcube.org.uk/wod.html?satelliteId=2

[ANS thanks AMSAT-UK for the above information]

Astronaut Issues Challenge for UK Students to Contact ISS

Tim Peake KG5BVI, the first British ESA astronaut, has issued an invitation to UK school pupils to contact him via amateur radio whilst he is in space.

Tim will launch to the International Space Station (ISS) in November of this year and will spend 6 months working and living on the ISS. Thanks to a collaboration between Amateur Radio on the International Space Stations (ARISS), the UK Space Agency, the Radio Society of Great Britain (RSGB) and the European Space Agency (ESA), UK school pupils will be able to contact him whilst he is on board the ISS via a scheduled amateur radio link-up.

The selected schools/organisations will host a direct link-up with the International Space Station during a two-day, space related STEM workshop. ARISS UK will provide and set up all necessary radio equipment (for example, low earth orbit satellite tracking antennas and radios) to establishing a fully functional, direct radio link with the International Space Station from their very own premises. In a ten-minute window when the ISS will be over the UK, an amateur radio contact will be established with Tim, and students will be able to ask him questions about his life and work on board the ISS.

During the contact with Tim the students will be able to hear and potentially see his response immediately. Tim will be using the amateur radio callsign GB1SS whilst he is talking to UK based schools.

Schools throughout the United Kingdom are being invited to host one of a limited number of these in-flight calls, which will include space workshops where students can explore space, space related technologies, the relevance of space to our digital lives and even analyse data being sent down from orbiting satellites.

The students taking part in the link-up will have to obtain their full amateur radio licence to be eligible to operate the radio and one lucky student at each of the selected schools will be responsible for making contact with the ISS.

An RSGB team and the ARISS UK Operations team will work with the chosen schools to prepare them for this exceptional opportunity during the mission of the first British ESA Astronaut.

Tim Peake said:
“I hope to share as much of my mission as possible and am delighted that I will be able to talk to UK students when the ISS flies over Britain, thanks to the radio amateur equipment on board the International Space Station and the ARISS programme.”

Jeremy Curtis, Head of Education at the UK Space Agency, added:
“Both Tim’s space mission and amateur radio have the power to inspire young people and encourage them into STEM subjects. By bringing them together we can

boost their reach and give young people around the UK the chance to be involved
in a space mission and a hands-on project that will teach them new skills."

Ciaran Morgan, M0XTD, R.S.G.B. Lead for ARISS and ARISS Operations in the UK,
said:
"Tim Peake, and his Principia mission to the ISS, offers students a unique insight to space and amateur radio. ARISS (Amateur Radio on the International
Space Station) is delighted to be able to help UK students connect with Tim whilst he is in space, using only amateur radio equipment on the ISS and in schools, to help inspire our future generations of scientists, technicians, engineers and mathematicians."

John Gould, G3WKL, President of the RSGB said:
"The RSGB is delighted to be able to support the UK Space Agency and Tim's journey into space, and looks forward to working with the selected schools."

How to Apply
The opportunity to be involved in this exciting project opens 20 March 2015. Eligible institutions are invited to apply in order to register their interest.

Stage 1 application forms, available from the European Space Education Resource Office web site at
http://tinyurl.com/ariss-timpeake
must be returned no later than Friday 24 April 2015.
Schools/Institutions that are to be invited to proceed to Stage 2 will be notified in the week commencing 11 May 2015.

Stage 2 applications must be submitted and received by 26 June 2015. There will then be a selection process involving the UK Space Agency, ESA, ARISS and the RSGB. The successful schools will be announced at the UK Space Conference on 14 July 2015.

UK National STEM Centre – Amateur Radio on the International Space Station
http://www.nationalstemcentre.org.uk/elibrary/media/500/ariss

[ANS thanks RSGB and AMSAT-UK for the above information]

AMSAT Events

Information about AMSAT activities at other important events around the country. Examples of these events are radio club meetings where AMSAT Area Coordinators give presentations, demonstrations of working amateur satellites, and hamfests with an AMSAT presence (a table with AMSAT literature and merchandise, sometimes also with presentations, forums, and/or demonstrations).

*Saturday, 28 March 2015 – Greater Houston Hamfest and 2015 ARRL Texas State Convention in Rosenberg TX (southwest of Houston)

*Saturday, 28 March 2015 – Tucson Spring Hamfest in Tucson AZ (22nd Street, east of Columbus Blvd.)

*Friday, 3 April 2015 – presentation for the Associated Radio Amateurs of Long Beach in Signal Hill CA (Signal Hill Community Center)

*Friday, 17 April 2015 – presentation for the Oro Valley Amateur Radio Club in Tucson AZ

*Friday through Sunday, 1-3 May 2015 – ARRL Nevada State Convention in Reno NV (Boomtown Casino Hotel)

*Saturday, 2 May 2015 – Cochise Amateur Radio Association Hamfest in Sierra Vista AZ

*Thursday, 14 May 2015 – presentation for the Escondido Amateur Radio Society in Escondido CA

*Friday, Saturday, and Sunday, May 15-17 2015, Dayton Hamvention in Dayton OH (Hara Arena)

*Saturday, 6 June 2015 – White Mountain Hamfest in Show Low AZ

*Friday and Saturday, 12-13 June 2015 – HAM-COM in Irving TX (west of Dallas)

*Friday and Saturday, 7-8 August 2015 – Austin Summerfest in Austin TX

*Friday, Saturday, and Sunday, October 16-18 2015, AMSAT Symposium in Dayton OH (Dayton Crown Plaza)

[ANS thanks AMSAT-NA for the above information]

ARISS News

Recent Contacts

* Direct contacts with students at Collège Paul Langevin, Saint Junien, France, via F8KFZ/P, and at Ecole La Malmaison, Rueil-Malmaison, France, via F6KFA/p were successful Thu 2015-03-19 08:17:56 UTC. Astronaut Samantha Cristoforetti, IZØUDF answered questions for students at each school from the ISS. French astronaut Claudie Haigneré was on hand at Ecole La Malmaison to answer additional questions.

The event could be seen in this link from Paul Langevin/F8KFZ (Contact starts at 23'15")
http://www.f8kfz.org/ariss-87-retransmission-en-direct/

and from this link from La Malmaison (Contact starts at 57'10")
http://www.mairie-rueilmalmaison.fr/actualit%C3%A9s/th%C3%A8mes/jeunesse-scolarit%C3%A9/en-direct-avec-lespace

Collège Paul Langevin

The Collège Paul Langevin, situated in the town center of Saint-Junien in the west of the Haute Vienne and the Limousin (400 km south of Paris), is a former

primary school that became a general mixed college in 1964. The college follows
a general teaching syllabus and a further syllabus for teaching children of special needs. The college is composed of 6 sixth year classes, 5 fifth year classes, 5 fourth year classes, and 4 third year classes. Languages taught are
English, German, Spanish, and Latin. The college also has an athletic syllabus.

This school year, 2014–2015, the college has 615 students split over the four
years. This includes the special needs children who benefit from inclusion in
class life. There are 64 Students in this special needs program. These students
have significant and persistent difficulties in terms of academic learning, but
do not have intellectual disabilities.

Ecole La Malmaison

The elementary school La Malmaison is located in the department of Hauts-de-Seine in the city of Rueil-Malmaison, about 15 km west of Paris, and 10 km away
from the Versailles Palace. The school is surrounded by famous historic places:
the Castle of Malmaison, where Napoleon Bonaparte and his wife Josephine de Beauharnais lived at the end of the 18th Century; the banks of River Seine, depicted by famous Impressionist painters (Renoir, Manet, and Monet) at the end
of the 19th century; Mount Valerien, with its national memorial of 2nd World War French combatants; and the National Archeologic museum in the Castle of St
Germain-en-Laye city nearby.

The goal of this ARISS project is to encourage the children to study scientific activities like life aboard the ISS, the solar system, the day and
night caused by earth rotation, electricity experiences, the air quality on Earth and on the ISS, the weight on earth and the zero-gravity in space. This
ARISS project is an opportunity to visit the Amateur RadioClub Station of Rueil-
Malmaison (F6KFA) and discover their experiences on radio waves phenomena, learn the Morse code, and more.

Upcoming ARISS Contact Schedule

* Telebridge contacts with students at CEPES, Jodoigne, Belgium, and with students at Mimar Sinan Özel Okullar i, Istanbul,Turkey, via K6DUE are scheduled for Wed 2015-04-01 09:20:45 UTC 49 deg. Students will interview astronaut Samantha Cristoforetti, IZØUDF.

CEPES School

Cepes is situated in Jodoigne, a city in the French speaking region of Belgium. It is a secundary school with 810 students. The students participating
in the ARISS project specialize in Sciences, Mathematics, Languages and Human
Sciences. They are 15 -20 years old.

During this school year, the curriculum is oriented to the ARISS contact :
- Movements of the Earth and planets
- Acquisition of scientific vocabulary
- Studies of volumes and surfaces
- Graphic studies
- Use of instruments and techniques in model building
- Study of the concept of scale and scaling in model building
- Electricity: electrical systems
- Read a map, compass rose, latitude, longitude
- The effect of weightlessness on the human body
- Translation of ARISS contact questions from French into English

Mimar Sinan Collage

Mimar Sinan College is situated in Istanbul, Turkey. The students prepared the questions after they learned about the ISS during science lessons.They also watched videos of astronauts working in the ISS.

[ANS thanks ARISS, Charlie, AJ9N and David, AA4KN for the above information]

Satellite Shorts From All Over

PQ2 Brazil Satellite Operation March 20-22 Delayed

Just a heads up for a DX opportunity that was scheduled to occur 3/20-22/2015.
The expedition expects a delay of 30 days before the expedition will occur.

Original Message:
Ohio/Penn DX Bulletin #1206

PQ2, BRAZIL (Satellite/6m Op). Operators Pedro/PR8ZX and Augusto/PU8MET will be active as PQ2ZXT and PQ2/PU8MET, respectively, from Tocantins State (WW Loc. GI64) between March 20-22nd. Activity will be on the satellites and 6 meters. There are very few operators in this state. QSL via LoTW or their home callsign, direct or by the Bureau.

[ANS thanks AMSAT-BB for the above information]

N2IEN in Haiti 4/4-4/6

DXpedition to HH coming April 4-6!! Mostly HF cw, some SSB. And will try to work SO 50 satellite. Hopefully I'll also be QRV RTTY.

Pat has done very well from the rarely heard FJ and VP2V over the past month with his Yaesu VX-8 and Arrow antenna. His QSL manager is NR6M.

[ANS thanks AMSAT-BB and Paul, N8HM for the above information]

/EX

In addition to regular membership, AMSAT offers membership in the President's Club. Members of the President's Club, as sustaining donors to AMSAT Project Funds, will be eligible to receive additional benefits. Application forms are available from the AMSAT Office.

Primary and secondary school students are eligible for membership at one-half the standard yearly rate. Post-secondary school students enrolled in at least half time status shall be eligible for the student rate for a maximum of 6 post-secondary years in this status. Contact Martha at the AMSAT Office for additional student membership information.

73,
This week's ANS Editor,
Joe Spier, K6WAO
k6wao at amsat dot org